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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,031	08/18/2003	Raymond Robert Patch	MSFT-1956/303857.1	3222

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EXAMINER
VAUGHN, GREGORY J

ART UNIT	PAPER NUMBER
2178	

DATE MAILED: 03/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 August 2003*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 August 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *8/18/2003*.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Action Background

1.   This action is responsive to the application filing, application filed on 8/18/2003.

2.   Claims 1-25 are pending in the case, claims 1, 10, 18 and 21 are independent claims.

3.   Acknowledgement is made to the applicant's submission of an Information Disclosure Statement, filed 8/18/2003.

Drawings

4.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:

- "20" on page 7, in the middle of paragraph 26.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

5.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description:

- "622" in Figure 6.

A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

6.   The disclosure is objected to because of the following informalities:

- The disclosure recites "*a hard disk drive 140*" (beginning of paragraph 25 on page 6) and "*hard disk drive 141*" (end of paragraph 25 on page 6 and "*interface 140*" (end of paragraph 25 on page 6). The reference signs are used inconsistently; corrections are required.

- The disclosure recites those reference signs listed in paragraph 4 above, which are not shown in the drawings.

- The disclosure fails to disclose those reference signs listed in paragraph 5 above, which are shown in the drawings.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

7.   35 U.S.C. 101 reads as follows:

"Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title."

8.   Claims 1-25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

9.   **Regarding claims 1-25**, the claimed invention fails to produce a useful, concrete or tangible result. The claimed invention as a whole must accomplish a practical application. That is, it must produce a *"useful, concrete and tangible result." State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601-02. (See MPEP 2106.) Usefulness under the patent eligibility standard requires significant functionality to be present to satisfy the useful result aspect of the practical application requirement. See *Arrhythmia*, 958 F.2d at 1057, 22 USPQ2d at 1036. Merely claiming nonfunctional descriptive material stored in a computer-readable medium does not make the invention eligible for patenting. A process that consists solely of the manipulation of an abstract idea is not concrete or tangible. See In re Warmerdam, 33 F.3d 1354, 1360, 31 USPQ2d 1754, 1759 (Fed. Cir. 1994). See also Schrader, 22 F.3d at 295, 30 USPQ2d at 1459.

Applicant's invention is directed toward validating the elements of an electronic message by identifying message elements, and validating the

elements using validation rules stored in a validation table. Applicant's claims
and disclosure describe the steps taken to manipulate (validate) the
nonfunctional descriptive material (i.e. the message), but fail to describe a
significant functionality for a validated message. Applicant states in the
originally filed disclosure that: "*it is possible to write computer data that is not
valid according to some set of rules*" (page 1, paragraph 2), however the
disclosure is silent as to how a valid message would be functionally put to
use, or what to do if an invalid message is identified.

Applicant's invention is embodied as validating extensible markup
language (XML) messages, however the disclosure is silent as to the benefits
of a valid XML message, or why an invalid XML message is problematic.
Furthermore, XML is well known in the art to be a well-formed markup
language, but XML documents do not have to be valid. According to Tittel et
al., in *XML for Dummies*, copyright 2000 "*Although all XML documents are
well formed – or else they aren't XML – not all XML documents have to be
valid*" (page 54, second paragraph). Therefore, validating an XML document
is useful, but not essential. Applicant fails to explain why/how the validation
invention of the current application is useful or beneficial.

Claim Rejections - 35 USC § 102

10.   The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in

this Office action:

> "*A person shall be entitled to a patent unless –*
>
> *(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.*"

11.   Claims 1-25 are rejected under 35 U.S.C. 102(b) as being anticipated by

Tittel et al., *XML for Dummies*, 2nd Edition, Copyright 2000 (hereinafter Tittel).

12.   **Regarding independent claim 1**, Tittel discloses validating a message.

Tittel recites: "*An XML document type definition (DTD) defines the rules of the*

game for XML documents" (page 61, first paragraph) and "*Using a DTD*

properly means that your document will be valid" (page 61, second

paragraph). Tittel discloses interpreting document elements in a tree structure

and encountering elements of the message in order. Tittel recites: "*You*

should be able to look at a DTD, list all elements and their attributes, and

understand how and when to use those elements and their attributes. Create

a document tree to help you understand the hierarchy among document

elements. A document tree begins with one root element. All other elements

are children of (or nest within) that root element" (page 63, first and second

paragraphs). Tittel discloses consulting the DTD to identify a first delegate (or

rule) and applying the delegate to the first element on pages 64 and 66. On

page 64, at the top of the page, Tittel presents sample XML code that includes a call to an external DTD. The DTD is shown in the sample code on page 66. In the sample code on page 66, a first element is given delegate (shown as the line of code "*<!ELEMENT Book (Subject, Title, Author)>*"). This sample code further shows a second element getting a second delegate (see the subsequent lines of code). The DTD described by Tittel in this section of the book are a listing of rules and not a table per se, however Tittel discloses the DTD in the form of a table. Tittel recites: "*DocBooks uses tables from a different DTD: the so-called CAALS table model, which supports almost any table permutations that you can imagine*" (page 299, fifth paragraph).

13.   **Regarding dependent claim 2**, Tittel discloses a first and second validation table. Tittel recites: "*In this section we outline the differences between an internal and an external DTD*" (page 76, first paragraph). Tittel discloses determining that a second validation table contains no delegate for the first element before consulting the first validation table. Tittel recites: "*The XML processor always reads the internal subset first. Therefore, the internal DTD takes precedence*" (page 77, third paragraph). Therefore, Tittel shows that if the second validation table (i.e. the internal DTD) contains no delegate for the element, than the first validation table (the external DTD) would be consulted for a delegate.

14.   **Regarding dependent claim 3**, Tittel discloses consulting the first validation table to identify a third delegate for the first element and applying the third delegate. In the sample code on page 66, a first element is given delegate (shown as the line of code "*<!ELEMENT Book (Subject, Title, Author)>*"). This sample code further shows a second element getting a second delegate (see the subsequent lines of code). The first element "Book" is a parent to the "Subject, Title and Author" elements. The delegates for the child elements inherently affect the parent, thereby applying a third delegate to the first element.

15.   **Regarding dependent claim 4**, Tittel discloses a flag indicating that a subtree of the element is to be traversed. In the sample code on page 66, Tittel presents a line of code: "*<!ELEMENT Book (Subject, Title, Author)>*". The "*Subject*", "*Title*" and "*Author*" elements are flags that indicate that the element "*Book*" has a subtree that is to be traversed.

16.   **Regarding dependent claim 5**, Tittel discloses a plurality of validation tables. Tittel recites: "*In this section we outline the differences between an internal and an external DTD*" (page 76, first paragraph). Tittel discloses selecting one of the validation tables based on a criterion. Tittel recites: "*The XML processor always reads the internal subset first. Therefore, the internal DTD takes precedence*" (page 77, third paragraph). Therefore, Tittel shows that a criterion is used for selecting the validation table.

17.   **Regarding dependent claim 6**, Tittel discloses the first delegate making

a decision based on an element that is neither the first element nor a subtree

of the first element. Tittel discloses on page 69, in the section titled *Mixed*

Content Mixes It Up, a first delegate with the following code: " *<!ELEMENT*

Name <(#PCDATA | Child1 | Child2)>* " wherein the "*PCDATA*" is an element

that is neither the first element nor a subtree of the first element, but is used

by the delegate.

18.   **Regarding dependent claim 7**, Tittel is directed toward XML content.

19.   **Regarding dependent claim 8**, Tittel discloses the first and second

delegates as interpretable code in the code listing shown at the top of page

66.

20.   **Regarding dependent claim 9**, Tittel discloses the use of validation

tables as described above in the rejection of claim 1.

21.   **Regarding independent claim 10**, Tittel discloses creating the validation

delegates, wherein the delegates validate a particular type of element of a

message. Tittel's chapter 5, *Understanding and Using DTDs* describes the

steps related to creating a DTD, wherein the DTD validates elements of a

message, as described above. See in particular the section on page 65 titled

Document Type Declarations where the basic structure of the DTD is

described.

22.   **Regarding dependent claim 11**, the claim is directed toward a method for the computer-readable medium of claim 2, and is rejected using the same rationale.

23.   **Regarding dependent claim 12**, Tittel discloses applying the first validation delegate to the element when the element is encountered, and only applying the second delegate to the element after the first delegate has been applied to the first delegate and any subtrees of the first element. This functionality is inherent in any programming language. A first section of code (i.e. a delegate) will be completely executed before a second section of code (i.e. a second delegate) is initiated. Where the first section of code is directed toward an element, and the elements has dependent elements (child elements), that element and the child elements will be processed before the second section of code is initiated.

24.   **Regarding dependent claim 13**, the claim is directed toward a method for the computer-readable medium of claim 7, and is rejected using the same rationale.

25.   **Regarding dependent claim 14**, Tittel discloses the message organized in the form of a tree, as described above in relation to the rejection of claim 1.

26.   **Regarding dependent claim 15**, the claim is directed toward a method for the computer-readable medium of claim 4, and is rejected using the same rationale.

27.   **Regarding dependent claim 16**, the claim is directed toward a method

for the computer-readable medium of claim 8, and is rejected using the same

rationale.

28.   **Regarding dependent claim 17**, Tittel discloses one of the validation

delegates as null. Tittel discloses in table 5-2, on pages 68 and 69, a listing of

the types of content for elements supported in XML. The second content type

is *"EMPTY"* which is described as *"an element must contains no content"*,

hence is null.

29.   **Regarding independent claim 18**, the claim is substantially the same as

claim 1, and is rejected using the same rationale.

30.   **Regarding dependent claim 19**, the claim is directed toward a computer-

readable medium for the method of claim 12, and is rejected using the same

rationale.

31.   **Regarding independent claim 20**, the claim is substantially the same as

claim 4, and is rejected using the same rationale.

32.   **Regarding independent claim 21**, the claim is directed toward a system

for the computer-readable medium of claim 1, and is rejected using the same

rationale.

33.   **Regarding dependent claim 22**, the claim is directed toward a system for the computer-readable medium of claim 2, and is rejected using the same rationale.

34.   **Regarding dependent claim 23**, the claim is directed toward a system for the method of claim 12, and is rejected using the same rationale.

35.   **Regarding dependent claim 24**, the claim is directed toward a system for the computer-readable medium of claim 7, and is rejected using the same rationale.

36.   **Regarding dependent claim 25**, the claim is directed toward a system for the computer-readable medium of claim 8, and is rejected using the same rationale.

Conclusion

37.   The following prior art made of record and not relied upon is considered

pertinent to applicant's disclosure.

Patent/Publication	Date	Inventor
• US-6,915,454 B1	07-2005	Moore et al.
• US-6,954,766 B2	10-2005	Ouchi, Norman Ken
• US-7,003,526 B1	02-2006	Lee et al.
• US-2002/0188890 A1	12-2002	Shupps et al.
• US-2003/0005044A1	01-2003	Miller et al.
• US-2003/0028863 A1	02-2003	Reichenthal, Steven W.
• US-2003/0120875 A1	06-2003	Bourne et al.
• US-2003/0163778 A1	08-2003	Shores et al.
• US-2003/0182321 A1	09-2003	Ouchi, Norman Ken
• US-2004/0030788 A1	02-2004	Cimo et al.
• US-2004/0226027 A1	11-2004	Winter, Tony Jon

38.   Any inquiry concerning this communication or earlier communications from

the examiner should be directed to Gregory J. Vaughn whose telephone

number is (571) 272-4131. The examiner can normally be reached Monday to

Friday from 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the

examiner's supervisor, Stephen S. Hong can be reached at (571) 272-4124.

The fax phone number for the organization where this application or

proceeding is assigned is (571) 272-2100.

Information regarding the status of an application may be obtained from

the Patent Application Information Retrieval (PAIR) system. Status

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PAIR or Public PAIR. Status information for unpublished applications is

available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on

access to the Private PAIR system, contact the Electronic Business Center

(EBC) at 866-217-9197 (toll-free).

STEPHEN HONG
SUPERVISORY PATENT EXAMINER

Gregory J. Vaughn
February 24, 2006